



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/502,130	08/19/2005	Michael Ziegler	82292	1507
23685 7590 12/16/2008 KRIEGSMAN & KRIEGSMAN 30 TURNPIKE ROAD, SUITE 9 SOUTHBOROUGH, MA 01772				
EXAMINER WRIGHT, PATRICIA KATHRYN				
ART UNIT		PAPER NUMBER		
1797				
MAIL DATE		DELIVERY MODE		
12/16/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/502,130

Applicant(s)

ZIEGLER, MICHAEL

Examiner

P. Kathryn Wright

Art Unit

1797

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 24-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 24-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 July 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 14, 2008 has been entered.

Status of the Claims

2. This action is in response to papers filed October 14, 2008 in which claim was amended. The amendments have been thoroughly reviewed and entered. Any objection/rejection not repeated herein has been withdrawn by the Office.

Claims 1-4 and 24-35 are under prosecution.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "electronic image evaluation apparatus" in claim 1 and the "vertical height of the lateral lamps arranged on two sides of the container located in the analysis position is of greater dimension than the vertical height of the middle lamp" in claim 27 must be shown or the feature(s) canceled from the claim(s).

Please note that the drawings and specification do not show the "electronic image evaluation apparatus" however, they do disclose an image evaluation computer

or image processing computer, see Fig. 1 and see first full paragraph of page 6. The Office recommends Applicant change all claim recitations of the "electronic image evaluation apparatus" to --image evaluation computer-- or -- image processing computer-- since these limitations are associated with an element in the drawings (i.e., 13). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claim 1 is objected to because of the following informalities: third line from bottom of claim recites "the illuminating device further comprising a further,...". The second recitation of "further" should be removed for clarity.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 31-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The antireflection plate in these claims lacks antecedent basis. Also it is not clear where the "antireflection plate" is located in the system.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-4, 24-25, 27, 29-30 and 34-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Kaplan et al., (US Patent No. 5,835,620), hereinafter "Kaplan".

Kaplan teaches an arrangement for analyzing body fluids comprising an image recording device (camera 18), an electronic image evaluation apparatus (processing

system 26), a container (reads on slide that holds the sample 78 between the slide body and the cover slip 35 as seen in Fig. 5), and an illuminating device 20, 22, 24.

The image recording device 18 is connected to an the electronic image evaluation apparatus (see Fig. 1), wherein the body fluid is provided in the container (between slide body and coverslip). The image recording device produces at least one image of the body fluid in the container and being aligned with and focused on the container which is in a stationary analysis position on stage 14. See Fig. 2 and .

The illuminating device is arranged above the container and serves to illuminate the container via light banks 20 and light diffuser 24. The illuminating device also comprises on each of two sides of the container located in the stationary analysis position a lateral lamp (20), see for example col. 6, lines 1-7. The lateral lamps are arranged such that the mid points of the two lateral lamps and the mid point of the container lie on a straight line (A), see Fig. 4. The illuminating device further comprising a middle lamp 22, 24 being provided and arranged in such a way that the mid points of this middle lamp and of the container likewise lie on a vertical straight line (B) which is perpendicular to the straight line (A), see col. 7, line 19- col. 8, line 9.

As to claims 1 and 3, it is expected that the Kaplan system 10 is contained within some housing (i.e., chamber) with few or no optical reflections so as to allow the system to map the areas of a slide. This mapping process of Kaplan includes the steps of selectively illuminating the slide from a first light source oriented generally obliquely to the surface of the slide, obtaining a first image of the slide illuminated by the first light source, selectively illuminating the slide from a second light source providing generally

scattered light, obtaining an image of said second image illuminated by the second light source, and generating a map of areas of significance based on the first and second images. Any light incident on the slide from outside the chamber during the process of obtaining an edge image by the side lamps 20 would reduce the light captured by the camera since the system uses the brightness of the reflected light to determine the coverslip edges (see col. 4, line 66-col. 5, line 13 and col. 6, line 56- col. 7, line 18).

As to claim 2, Kaplan teaches the image recording device is a color image camera or a spectral camera, see col. 6, lines 8 et seq.

As to claim 4, Kaplan shows that the image recording device 18 is aligned with and focused on the container at an acute angle relative to the vertical axis (i.e., less than 90 degrees), see Fig. 5 for example.

As to claim 24, Kaplan teaches the optical axis of the image recording device 18 runs in a vertical plane that is perpendicular the line (A), the line (B) lying in this vertical plane (see Fig. 5).

With respect to claim 25, the lamps 20 of Kaplan have the same horizontal spacing from the container 16, see Figs. 1 and 3.

As to claim 27, the vertical height of the lateral lamps 20 of Kaplan are is of greater dimension than the vertical height of the middle lamp 22, see Fig. 1.

Regarding claims 29-30, Kaplan teaches a scanner (i.e., bar code reader 32) which is aligned with the container in the analysis position.

As to claims 34-35, Russell also teaches a lifting rotary gripper (robot 28) for moving a container from its transportation position (30) to its analysis position on stage 14.

9. Claims 1-4, 24-25, 27 and 34-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Shimizu et al., (US Patent No. 5,719,679), hereinafter "Shimizu".

Shimizu teaches an arrangement for analyzing materials comprising an image recording device (camera 33), an electronic image evaluation apparatus (computer 82), a container (VL), a chamber having no reflections from exterior light sources (see chamber in Fig. 3), and an illuminating device 32.

The image recording device 33 is connected to an the electronic image evaluation apparatus, wherein the material is provided in the container. The image recording device produces at least one image of the material in the container and being aligned with and focused on the container which is in a stationary analysis position on stage 14. See Fig. 2.

Note that the material in the container is not considered as part of the claimed device structure and is therefore not given patentable weight. For apparatus claims, if the prior art structure is capable of performing the intended use, then it meets the claim. Apparatus claims must be structurally distinguishable from the prior art in terms of structure, not function. See MPEP § 2114 & § 2173.05(g).

The illuminating device of Shimizu includes lamps 34, 35 arranged above the container. These lamps serve to illuminate the container and are located on two sides of the container in the stationary analysis position a lateral lamp 34, 35, see Fig. 6. The

lateral lamps are arranged such that the mid points of the two lateral lamps and the mid point of the container lie on a straight line (A) as seen from above like Applicant's figure

2. The illuminating device further comprising a middle lamp 32 being provided and arranged in such a way that the mid points of this middle lamp and of the container likewise lie on a vertical straight line (B) which is perpendicular to the straight line (A), as shown in Fig. 6.

As to claim 2, Shimizu teaches the image recording device is a color image camera or a spectral camera, see col. 4, lines 59 et seq.

As to claim 5, Shimizu shows the image recording device 32 is aligned with and focused on the container at an acute angle relative to the vertical axis (i.e., less than 90 degrees), see Fig. 6 for example.

As to claim 24, Shimizu teaches the optical axis of the image recording device 32 runs in a vertical plane that is perpendicular the line (A), the line (B) lying in this vertical plane (see Fig. 6).

With respect to claim 25, the lamps 34, 35 of Shimizu have the same horizontal spacing from the container VL, see Figs. 1 and 3.

As to claim 27, the vertical height of the lateral lamps 20 of Shimizu is of greater dimension than the vertical height of the middle lamp, see Fig. 6.

As to claims 34-35, Shimizu also teaches a lifting rotary gripper 59 for moving a container from its transportation position (30) to its analysis position on stage 14.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. Claims 26 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaplan (US Patent No. 5,835,620), or Shimizu et al., (US Patent No. 5,719,679).

The teachings of Kaplan and Shimizu have summarized previously, *supra*.

Neither Kaplan or Shimizu specifically recite the spacing of each lamp from the container being sixty millimeters (claim 26) or the difference in height between the lateral lamps and the middle lamp is sixteen millimeters (claim 28).

However, it would have been an obvious matter of design choice to make the spacing between each lamp from the container sixty millimeters and the difference in height between the lateral lamps and the middle lamp sixteen millimeters, in the either system of Kaplan or Shimizu, since such a modification would have involved a mere

change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

13. Claims 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu (US Patent No. 5,719,679) in view Watson et al., (WO 99/28724), hereinafter Watson.

The teachings of Shimizu have been summarized previously, *supra*. Shimizu does not specifically teach a bar code scanner for scanning the vial. However, the use of bar code scanners to identify items being analyzed is considered conventional in the art, see for example Watson.

Watson teaches an arrangement for analyzing body fluids having an image-recording device 22 (color image digital camera) connected to an electronic image evaluation apparatus (controller, not shown) and a barcode scanner 20. The body fluid is provided in container 14 inside a chamber 10 believed to have few optical reflections provided by the bias in the variation in brightness of the illumination means 142. In the analysis position, the image recording device is aligned with and focused on the container, and an illuminating devices 142 for illuminating the container from above and below.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to have included in the system of Shimizu, a bar code scanner like that taught by Watson, since bar code scanners are well known in the art for providing reliable means for automatically identifying items being analyzed.

14. Claims 31-33, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaplan (US Patent No. 5,835,620) or Shimizu (US Patent No. 5,719,679) in view of Toshiaki (JP 09-133687).

The teachings of Kaplan and Shimizu have summarized previously, *supra*. Both references teach analyzing the contents of a container using an image recording device (i.e., imaging camera) and three lamps positioned around the container for capturing an image of the contents of the container. However, Kaplan and Shimizu do not specifically recite an anti-reflection plate arranged on the side of the container and turned away from the image recording device.

Toshiaki does teach an anti-reflection plate (plastic body or piece of paper) made of a white or gray material placed behind the tube when the image is recorded, in order for the background to be as uniform as possible and arranged on the side of the container, turned away from the image recording device, see paragraph [0042] of Detailed Description section of Toshiaki (see English translation provided with Official action dated July 06, 2007). The flexible paper is believed capable of creating a concave depression adapted to conform to the peripheral shape of the container.

Thus, it would have been obvious to one having ordinary skill in the art at the time of the claimed invention to have included in detector system of Kaplan or Shimizu, the anti-reflection plate of Toshiaki so as to make the exterior of the tube as uniform as possible to remove the background noise resulting from a tube with or without label, see paragraph [0042] of Detailed Description section of Toshiaki (see English translation provided with Official action dated July 06, 2007).

With respect to claim 33, the anti-reflection material of Toshiaki is arranged such that it "can be" moved away from the container by a person. Note that the process of moving the material holds no patentable weight in an apparatus claim. Only structural language is determinative of the metes and bounds of a patent apparatus claim. See MPEP 2114.

Response to Arguments

15. Applicant's arguments with respect to claims 1-4, 24-35 have been considered but are moot in view of the new ground(s) of rejection. See above.

Conclusion

16. No claims allowed.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to P. Kathryn Wright whose telephone number is (571)272-2374. The examiner can normally be reached on Monday thru Thursday, 9 AM to 6 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

Art Unit: 1797

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. Kathryn Wright/
Examiner, Art Unit 1797